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Building assembly and method

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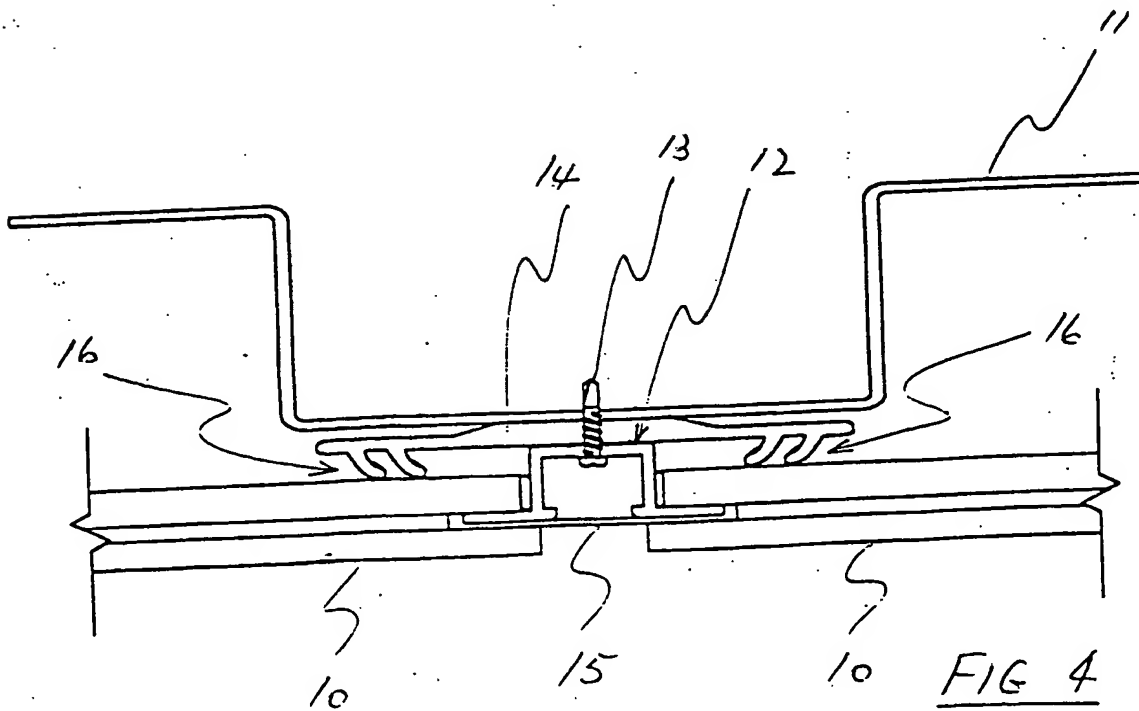
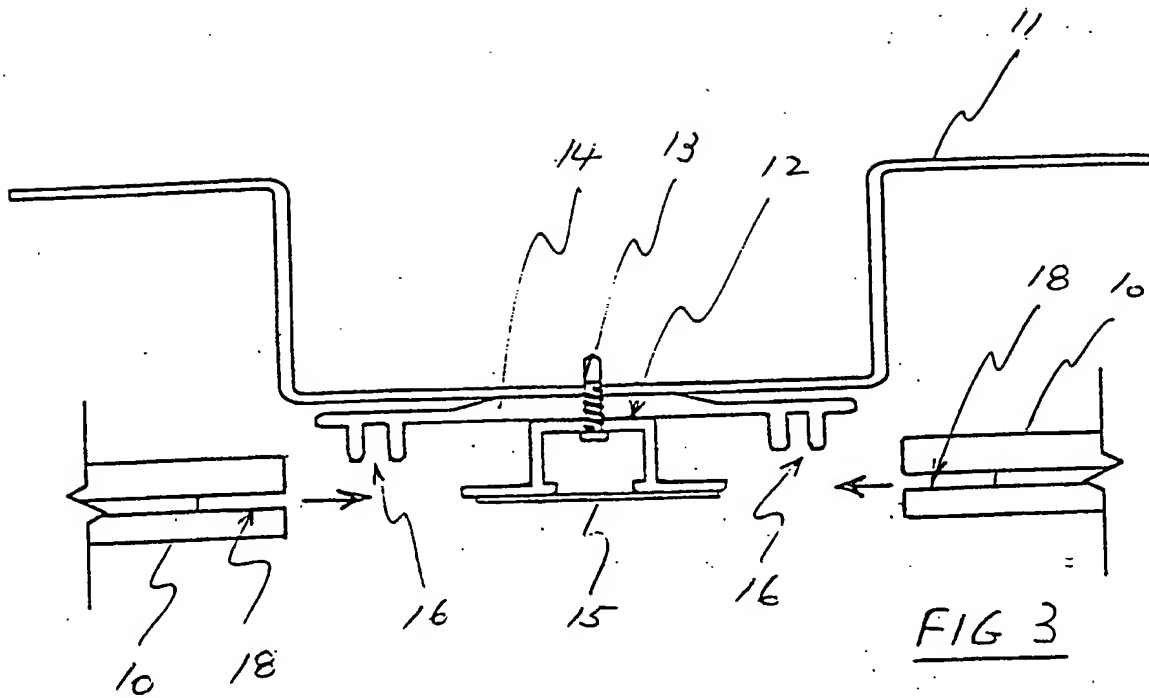
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Abstract

A building assembly is disclosed which includes a plurality of elongate jointing elements 12 adapted to be fastened relative to a building frame 11 and each including an outwardly facing channel portion and at least one flange extending laterally from the channel portion for engaging a cladding panel 10; a plurality of cladding panels 10 having slots formed in their edges for engaging the at least one flange for supporting the cladding panel to form a wall, and sealing means 14 positionable between the building frame 11 and an elongate jointing element 12 when fastened thereto for substantially sealing the space between the building frame 11 and the cladding panel 10 against the ingress of moisture.



APPLICANT:

HILTIVE PTY LIMITED

Form 10
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PETTY PATENT SPECIFICATION FOR AN INVENTION ENTITLED:

BUILDING ASSEMBLY AND METHOD

The following statement is a full description of this invention, including the best method of performing it known to me/us:

"BUILDING ASSEMBLY AND METHOD"**Technical field**

This invention relates to a building assembly and method.

- 5 The invention has particular but not exclusive application to a building assembly and method for fastening cladding panels to building frames.

Background of Invention

- 10 It is known for cladding panels to be fastened to building frames by a variety of methods and fastening assemblies. Australian patent application 22519/99 and New Zealand Patent application 507152 in the name of the present applicant illustrate two such methods and fastening assemblies.

Summary of Invention

- 15 The present invention aims to provide an alternative to known building assemblies and methods.

This invention in one aspect resides broadly in a building assembly including:-

- 20 a plurality of elongate jointing elements adapted to be fastened relative to a building frame and each including an outwardly facing channel portion and at least one flange extending laterally from the channel portion for engaging a cladding panel;

- 25 a plurality of cladding panels having slots formed in their edges for engaging the at least one flange for supporting the cladding panel to form a wall, and

sealing means positionable between the building frame and an elongate jointing element when fastened thereto for substantially sealing the space between the building frame and the cladding panel against the ingress of moisture.

- 30 In another aspect this invention resides broadly in a method of fastening cladding panels to building frames, the method including:-

positioning sealing means between an elongate jointing element and the building frame, the jointing element including an outwardly facing channel

portion for fixing the jointing element relative to the building frame and at least one flange extending laterally from the channel portion for engaging a cladding panel, and the sealing means being adapted to substantially seal the space between the building frame and the cladding panels against the ingress
5 of moisture;

fastening the elongate jointing element relative to building frame;
forming a slot in the edge of a cladding panel, and
engaging the flange in the slot.

It is preferred that the sealing means is a longitudinally extending
10 gasket.

It is also preferred that the gasket includes longitudinally extending rib means adapted to resiliently engage the inner surface of the cladding panels when the at least one flange engages a slot in the cladding panel.

It is also preferred that the rib means includes a plurality of parallel ribs
15 extending outwardly of the building frame when the gasket is positioned thereagainst by the jointing element.

It is also preferred that the ribs are dimensioned such that engagement of a flange of a jointing element in a slot in a cladding panel biases the ribs against the inner surface of the cladding panel.

It is also preferred that the building assembly includes elongate cover
20 means fastenable to the at least one flange for covering the channel portion. Preferably the arrangement is such that the cover means when fastened to the flange is receivable with the flange within a slot in the cladding panel.

In another aspect this invention resides broadly in a method of
25 assembling a wall, the method including:-

positioning sealing means between a frame and a plurality of longitudinally extending support members, the sealing means being adapted to seal the wall cavity against the ingress of moisture and the support members having flanges extending therefrom;

30 mounting the support members to the frame, and

supporting a walling member having recesses along opposed sides thereof between a pair of support members by positioning the flanges in the recesses.

The method preferably also includes fastening elongate cover means to the support members to cover the support members between adjoining walling members.

5 In a further aspect this invention also resides broadly in a wall cladding assembly including:-

longitudinally extending support members for mounting to a frame and having flanges extending therefrom:

sealing means positionable between the frame and an elongate jointing element when fastened thereto for substantially sealing the wall cavity against
10 the ingress of moisture, and

a plurality of walling members having recesses along opposed sides thereof for receiving the flanges whereby the plurality of walling members is supported by the plurality of support members to form a wall.

The wall cladding assembly preferably also includes elongate cover
15 means for fastening to the support members to cover the support members between adjoining walling members.

Description of Drawings

In order that this invention may be more easily understood and put into
20 practical effect, reference will now be made to the accompanying drawings which illustrate a preferred embodiment of the invention, wherein:-

FIGS 1-4 are sectional elevations of the building assembly in accordance with the present invention, and progressively illustrate the method of the
invention.

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Description of Preferred Embodiment of Invention

The invention is best explained by turning first to FIG 4 which shows cladding panel walling fixed in place on a building. As seen in FIG 4, the building assembly of the present invention includes a plurality of elongate
30 jointing elements 12 (of which only one is shown) adapted to be fastened relative to a building frame in the form of top hat section 11 by screws 13. Each jointing element 12 is in the form of a top hat section and includes an outwardly facing channel portion and at least one flange 17 (see FIG 1

wherein, as is preferable, a pair of flanges 17 are shown) extending laterally from the channel portion for engaging a cladding panel 10. A plurality of cladding panels 10 have slots 18 formed in their edges (see FIG 3) for engaging the flanges 17 for supporting the cladding panels 10 to form a wall.

- 5 Sealing means in the form of an elongated or longitudinally extending gasket 14 is positionable between building frame 11 and elongate jointing elements 12 when fastened thereto for substantially sealing the space between building frame 11 and the cladding panels 10 against the ingress of moisture.

Gasket 14 is made from a resilient flexible material such as EPDM or
10 neoprene for example and has longitudinally extending parallel ribs 16 which are adapted to resiliently engage the inner surface of cladding panels 10 when flanges 17 engage in slots 18 in cladding panels 10. Ribs 16 extend outwardly of building frame 11 when gasket 12 is positioned thereagainst by jointing element 12 when fastened to the building frame by screws 13.

- 15 As is best seen in FIGS 3 and 4 ribs 16 are dimensioned such that engagement of flanges 17 in slots 18 biases the ribs against the inner surface of cladding panels 10. Thus the outwardly extending height of ribs 16 is slightly greater than the external dimension of the channel portion of jointing elements 12 less the width of the inner portion of walling panel 10 formed by
20 slot 18. This results in the biasing configuration seen in FIG 4 when the panels are slid over the flanges as seen in the directions of the arrows in FIG 3.

Elongate cover means in the form of strips 15 are fastened to the flanges 17 as seen in FIG.2 for covering the channel portion. Strips 15 and
25 flanges 17 when fastened together are receivable within slots 18.

In use, as seen progressively in FIGS 1 – 4, cladding panels are fastened to building frames in the method of the present invention by positioning sealing means 14 between an elongate jointing element 12 and the building frame 11, fastening the elongate jointing element relative 12 to
30 the building frame, forming a slot 18 in the edge of a cladding panel 10, and engaging flange 17 in slot 18. The jointing element 12 includes an outwardly facing channel portion for fixing jointing element 12 relative to the building frame 11 and flanges 17 extending laterally from the channel portion for

engaging cladding panels 10. The sealing means 14 is adapted to substantially seal the space between the building frame 11 and the cladding panels 10 against the ingress of moisture.

5 It will be appreciated that cover strip 15 may be fastened to flanges 17, before panels 10 are slid over the flanges (as illustrated) or alternatively can be inserted into slots 18 and fastened to flanges 17 when the panels 10 have already been slid over flanges 17.

A range of materials can be used for the various components and the scope of protection is not limited in this regard. Thus the panels for example
10 can be made of any suitable cladding material.

It will be appreciated that the various preferred embodiments of the present invention have a number of advantages over known methods and assemblies of fastening cladding panels to building frames.

15 These include removing sealing gaskets from direct UV light thereby significantly extending their effective life. Furthermore suitable gaskets for external mounting as in the prior art are available in a limited colour range and the replacement of the external gasket by a cover strip allows for the space between adjoining panels to be better colour coordinated with panel colours

20 It will of course be realised that whilst the above has been given by way of an illustrative example of this invention, all such and other modifications and variations hereto, as would be apparent to persons skilled in the art, are deemed to fall within the broad scope and ambit of this invention as is herein set forth.

The claims defining the invention are as follows:-

1. A building assembly including:-
a plurality of elongate jointing elements adapted to be fastened relative
5 to a building frame and each including an outwardly facing channel portion
and at least one flange extending laterally from the channel portion for
engaging a cladding panel;
a plurality of cladding panels having slots formed in their edges for
engaging the at least one flange for supporting the cladding panel to form a
10 wall, and
sealing means positionable between the building frame and an
elongate jointing element when fastened thereto for substantially sealing the
space between the building frame and the cladding panel against the ingress
of moisture.
15
2. A building assembly as claimed in claim 1, wherein the sealing means
is a longitudinally extending gasket.
3. A building assembly as claimed in claim 2, wherein the gasket includes
20 longitudinally extending rib means adapted to resiliently engage the inner
surface of the cladding panels when the at least one flange engages a slot in
the cladding panel.



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